

IN THE CLAIMS

1. (currently amended) An automated coring machine, comprising:

 a frame having a feed area and a lifting device;

 a coring station mounted to said frame and receiving said lifting device; and,

 a programmable controller in electric communication with a fluid cylinder of said lifting device and a first and a second fluid cylinder of said coring station connected to said frame;

 said first fluid cylinder operably connected to a push plate and said second fluid cylinder operably connected to a coring tube;

 wherein said lifting device comprises an arcuate scoop having a feed area gate depending from said scoop.
2. (original) The automated coring machine of claim 1, wherein said programmable controller is a PLC fixedly attached to said frame.
3. (Canceled)
4. (previously presented) The automated coring machine of claim 1, wherein said scoop further comprises a switch in electrical communication with said programmable controller.
5. (previously presented) The automated coring machine of claim 1, wherein said lifting device fluid cylinder is operably connected to said arcuate scoop.
6. (original) The automated coring machine of claim 5, wherein said fluid cylinder of said lifting device further comprises an upper and a lower limit switch in electronic communication with said programmable controller.

7. (previously presented) The automated coring machine of claim 1, further comprising at least one blade spaced between said scoop and said coring station, a position of said at least one blade being adjustable.
8. (original) The automated coring machine of claim 1, said first fluid cylinder of said coring station having a said push plate mounted on a piston of said first fluid cylinder and said first fluid cylinder having limit switches in electrical communication with said programmable controller.
9. (original) The automated coring machine of claim 8, further comprising a centering mechanism aligned with said push plate and spaced between said push plate and a circular blade, said circular blade being removably attached to said frame.
10. (currently amended) The automated coring machine of claim 9, ~~further comprising a~~ said coring tube axially aligned with said circular blade.
11. (original) The automated coring machine of claim 10, said coring tube extending through a push donut mounted to said frame and being connected to said second fluid cylinder and axially aligned with said centering mechanism and said circular blade.
12. (original) The automated coring machine of claim 11, said second fluid cylinder having limiting switches in electrical communication with said programmable controller.
13. (previously presented) An automated coring machine, comprising:
- a frame having a feed area and a lifting device;
 - a coring station mounted to said frame and receiving said lifting device;
 - two slidably adjustable blades between said lifting device and said coring station;
 - a PLC in electric communication with said lifting device and said coring station;

wherein each of said lifting device and said coring station have at least one fluid cylinder connected to said frame and each of said at least one fluid cylinder being in electrical communication with said PLC[.]

said fluid cylinder of said coring station directing a material to said coring station, said at least one fluid cylinder of said coring station causing engagement of said material and at least one of said two blades.

14. (canceled)

15. (original) The automated coring machine of claim 13, said lifting device further comprising a scoop having a feed area gate and a fluid cylinder having upper and lower limit switches, said cylinder having a piston operably connected to said scoop.

16. (original) The automated coring machine of claim 15, said upper and lower limit switches electrically connected to said PLC.

17. (original) The automated coring machine of claim 16, said coring station comprising a first fluid cylinder having a piston and a push plate attached to said piston.

18. (original) The automated coring machine of claim 17, said first cylinder having an extended and a retracted limit switch in electrical communication with said PLC.

19. (original) The automated coring machine of claim 17, further comprising a centering mechanism spaced between said push plate and a circular blade, and mounted to said frame.

20. (original) The automated coring machine of claim 19, said coring station further comprising a coring tube axially aligned with and operably connected to a piston of a second fluid cylinder and extending through said circular blade.

21. (original) The automated coring machine of claim 20, wherein said circular blade is removably connected to said frame.
22. (original) The automated coring machine of claim 20, said coring tube further extending through a push donut fixedly attached to said frame.
23. (original) The automated coring machine of claim 20, said second fluid cylinder having first and second limit switches in electrical communication with said PLC.
24. (original) The automated coring machine of claim 13, said frame comprising at least two parallel bars for linear alignment of said coring station.
25. (original) An automated coring machine, comprising:
- a frame having a feed area and a lifting device;
 - a coring station mounted to said frame and receiving said lifting device;
 - a programmable controller in electric communication with said lifting device and said coring station;
- wherein said frame has at least two parallel bars disposed adjacent to a feed area;
- wherein said lifting device includes a scoop having a feed area gate depending therefrom and a piston of a fluid cylinder operably connected to a bottom surface of said scoop;
- wherein said coring station includes a first fluid cylinder operably connected to a push plate, said first fluid cylinder connected to said frame;
- a centering mechanism being frusto-conical in shape and mounted between said parallel bars;
 - a circular blade removably connected to said frame and axially aligned with said centering mechanism;

a coring tube extending axially through said circular blade, extending through a push donut, and operably connected to a second fluid cylinder;

said second fluid cylinder operably connected to said frame.

26. (original) A coring machine, comprising:

a frame of at least two parallel bars;

a first fluid cylinder having a push plate operably connected to a piston of said first fluid cylinder;

a centering mechanism attached to said frame and axially aligned with said first fluid cylinder, said centering mechanism having a substantially frusto-conical shape with a first and second aperture;

a circular blade axially aligned with said first fluid cylinder and mounted to said frame adjacent a second aperture;

a coring tube axially aligned with said circular blade and operably connected to a second fluid cylinder;

said second fluid cylinder mounted to said frame and axially aligned with said first fluid cylinder; and,

a push donut fixedly attached to said frame, said coring tube extending through said donut.

27. (Cancelled)